

CV AND REFERENCES OF DR. MIRZA

1. **Name in Full:** Javed Iqbal Mirza

2. **Present Position:** Visiting Research Scientist
(Prof Holdsworth & Prof Bennett Labs),
Division of Plant & Crop Sciences,
School of Biosciences, University of Nottingham,
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3. Academic Career:

- Visiting Research Scientist- Division of Plant and Crop Sciences, School of Biosciences, University of Nottingham, UK, 2009-2010 (Characterization of some developmental mutants of *Arabidopsis thaliana* in collaboration with Professor Malcolm Bennett group, Professor Michael Holdsworth, and Professor Jerry Roberts group)
- Post doctorate- University of Georgia, USA, 1999-2000 (Genetical and Biochemical Studies of Polyamine and Developmental Mutants of *Arabidopsis*)
- Post doctorate- University of Bologna, Italy, 1988-1989 (Polyamine Metabolism in *Arabidopsis* and Screening of Elm Cell Culture Variants Resistant to *Ophiostoma ulmi* Culture Filtrate)
- PhD- Department of Genetics, University of Aberdeen, UK, 1978 to 1983
- MSc after Hons- Department of Botany, University of Punjab, Pakistan, 1969-1973

4. Employment Record:

- Professor of Botany, Division of Science & Technology, University of Education, Township Campus, Lahore, Pakistan from 20.08.2010 to 16.01.2011
- Director, Institute of Pure and Applied Biology, Bahauddin Zakariya University, Multan, Pakistan from 31-05-2006 to 23-04-2009
- Professor of Botany, Institute of Pure and Applied Biology, Bahauddin Zakariya University, Multan, Pakistan since 16-09-2000 to 14-10-2009
- Associate Professor of Botany, Institute of Pure and Applied Biology, Bahauddin Zakariya University, Multan, Pakistan from 22-08-2000 to 15-09-2000
- Postdoctoral Researcher (Fulbright Senior Scholarship), Department of Plant Biology, University of Georgia, Athens, GA, USA from 21-08-99 to 21-08-00
- Associate Professor of Botany, Institute of Pure and Applied Biology, Bahauddin Zakariya University, Multan, Pakistan from 01-01-96 to 20-08-99
- Assistant Professor of Botany, Institute of Pure and Applied Biology, Bahauddin Zakariya University, Multan, Pakistan from 01-08-89 to 31-12-95

- Postdoctoral Researcher (TWAS Research & Training Award for Research in Italian Laboratories), Department of Botany, University of Bologna, Italy from 12-10-88 to 31-07-89
- Assistant Professor of Botany, Institute of Pure and Applied Biology, Bahauddin Zakariya University, Multan, Pakistan from 27-03-88 to 11-10-88
- Lecturer in Botany, Institute of Pure and Applied Biology, Bahauddin Zakariya University, Multan, Pakistan from 30-09-84 to 26-03-88
- Assistant professor of Botany, Govt. W.H. Degree College, Multan, Pakistan from 22-08-84 to 30-09-84
- Lecturer in Botany, Govt. W.H. Degree College, Multan, Pakistan from 27-02-83 to 21-08-84
- Demonstrator to Graduate Students/Ph.D. Scholar, Genetics Department, University of Aberdeen, U.K. from 25-09-78 to 26-02-83
- Lecturer in Botany, Govt. Degree College, Burewala, Pakistan from 15-11-75 to 24-09-78

5. Services/ Honors

- a) Awarded "Best University Teacher for the Year 2008" by the Higher Education Commission, Pakistan.
- b) Awarded Fulbright Senior Fellowship for Post-doc at Department of Plant Biology, University of Georgia, Athens, GA, USA, 1999-2000
- c) Awarded TWAS (Trieste, Italy) Fellowship for Postdoctoral Research and Training in Italian Laboratories at Department of Botany, University of Bologna, Italy, 1988-89
- d) Coordinator, "27th Pakistan Congress of Zoology (International)" held at Bahauddin Zakariya University, Multan, Pakistan, February 27-March 01, 2007
- e) Coordinator, National Symposium on "Modern Trends and Approaches in Microbiology" organized by Institute of Pure & Applied Biology, Bahauddin Zakariya University, Multan, Pakistan, January 21, 2009.

6. **Students supervised:** I am HEC approved supervisor for PhD research. **Three** of my students have successfully completed their PhD and **five** others are in process under joint supervision.

7. Research Projects Completed:

- a) Awarded Research Equipment (valued 9203.00 GBP) for Arabidopsis Research by the German Agency for Technical Cooperation (GTZ) in 1988 (Recommended by Professor A. R. Kranz, Botanical Institute, Johann Wolfgang Goethe University, Frankfurt, Germany)
- b) "Isolation of NAA-resistant mutants of *Arabidopsis thaliana*" (1992-93)
Donor Agency: University Grants Commission, Pakistan.
- c) "Isolation and characterization of polyamine mutants of *Arabidopsis thaliana*" (1992-93)
Donor Agency: The Third World Academy of Sciences (TWAS), Trieste, Italy, Research Grant No. BC 91-031.
- d) "Isolation and characterization of cytokinin mutants of *Arabidopsis thaliana*" (1993-95)
Donor Agency: Pakistan Science Foundation, Project No. P-BZU/

- e) "Induction of genetic variability and selection of mutants for increased production in chickpea (*Cicer arietinum* L.)" (200 Donor Agency: University Grants Commission, Pakistan.
- f) "Genomic analysis for quality traits in cotton (*Gossypium hirsutum* L.) by DNA fingerprinting technology" (2002-04)
Donor Agency: BZU-University Grants Commission, Pakistan.
- g) "Characterization of some novel developmental mutants of Arabidopsis" (2004-05)
Donor Agency: BZU-Higher Education Commission, Pakistan
- h) "Genetic analysis of Basmati rice (*Oryza sativa* L.)" (2004-06)
Donor Agency: BZU-Higher Education Commission, Pakistan

8. SELECTED PUBLICATIONS:

1. Mirza J.I. and Maher E.P. More 2,4-D resistant mutants. *Arabid. Inf. Serv.*, 17: 103-107, 1980 (Germany)
2. Mirza J.I. and Maher E.P. The effects of light and gravity on roots of normal and ageotropic *Arabidopsis*. *Arabid. Inf. Serv.*, 18: 85-99, 1981 (Germany)
3. Olsen G.M., Mirza J.I. and Maher E.P. The behaviour of ageotropic roots in a gravitropic environment. Poster paper at *Eleventh Int. Conf. on Plant Growth Substances*. Aberystwyth, Wales, 12-16 July, 1982 (UK)
4. Mirza J.I., Olsen G.M., Iversen T-H. and Maher E.P. The growth and gravitropic responses of wild-type and auxin-resistant mutants of *Arabidopsis thaliana*. *Physiol. Plant.* 60: 516-522, 1984 (Denmark)
5. Olsen G.M., Mirza J.I., Maher E.P. and Iversen T-H. Ultrastructure and movements of cell organelles in the root cap of agravitropic mutants and normal seedlings of *Arabidopsis thaliana*, *Physiol. Plant.*, 60: 523-531, 1984 (Denmark)
6. Mirza J.I. and Maher E.P. The characterization of an auxin resistant dwarf mutant of *Arabidopsis thaliana*. *Arabid. Inf. Serv.*, 22: 23-33, 1985 (Germany)
7. Mirza J.I. and Maher E.P. The seed coat retention at the root-hypocotyl transition zone in *Arabidopsis thaliana*. *Arabid. Inf. Serv.*, 22: 35-41, 1985 (Germany)
8. Mirza J.I. and Maher E.P. Studies of an auxin-resistant mutant of *Arabidopsis thaliana*. *J. Res. Sci.* 1: 1-12, 1986 (Pakistan)
9. Mirza J.I. Spiral growth of hypocotyles in mutant *aux-1* of *Arabidopsis thaliana*. *Arabid. Inf. Serv.*, 23: 62-65, 1987 (Germany)
10. Mirza J.I. The effects of 2,4-D on the rosette development of mutant *Dwf* and Wild-type of *Arabidopsis thaliana*. *Arabid. Inf. Serv.*, 23: 59-61, 1987 (Germany)
11. Mirza J.I. and Maher E.P. Physiological characteristics of two auxin resistant mutants of *Arabidopsis thaliana*, *aux2* and *Dwf*. *Plant Growth Regul.* 5: 41-49, 1987 (The Netherlands)
12. Mirza J.I. Seed coat retention and hypocotyl hook development in mutants of *Arabidopsis thaliana*. *L. Ann. Bot.* 59: 35-40, 1987, (UK)
13. Mirza J.I. The effects of light and gravity on the horizontal curvature of roots of gravitropic and agravitropic *Arabidopsis thaliana* L. *Plant Physiol.*, 83: 118-120, 1987 (USA)
14. Mirza J.I. The clinostat effect on the direction of root growth of WT and

- aux-1* of *Arabidopsis*. *Arabid. Inf. Serv.*, 26: 35-38, 1988 (Germany)
15. Mirza J.I. Spirally twisted growth of *Arabidopsis* roots. *Arabid. Inf. Serv.*, 26: 97-99, 1988 (Germany)
 16. Mirza J.I., Khalid M. and Javed M.H. Comparative study of nitrogen fixation by some blue-green algae of Multan. *Pak. J. Bot.* 21: 339-342, 1989 (Pakistan)
 17. Biondi S., Mirza J.I., Mitterpergher L., and Bagni N. Selection of Elm cell culture variants resistant to *Ophiostoma ulmi* culture filtrate. *J. Plant Physiol.* 137: 631-634, 1991 (Germany)
 18. Mirza J.I. and Bagni N. Effects of exogenous polyamines and difluoromethylornithine on seed germination and root growth of *Arabidopsis thaliana*. *Plant Growth Regul.* 10: 163-168, 1991 (The Netherlands)
 19. Mirza J.I. *Arabidopsis* research in Pakistan. *For Thale or Went*. The Sixth AFRC PMB *Arabidopsis* Newsletter P. 21, July 1991 (UK)
 20. Mirza J.I. Polyamines and *Arabidopsis*. *A-rap-a-bop-sis*. The Seventh AFRC PMB *Arabidopsis* Newsletter, P. 21, November 1991, (UK)
 21. Mirza J.I. and Tariq R. Effects of sodium chloride on growth and nodulation of *Sesbania sesban*. *Pak. J. Bot.* 24: 209-212, 1992 (Pakistan)
 22. Mirza J.I. Plant hormone mutants in *Arabidopsis*. *Aravederci*, The Ninth AFRC PMC *Arabidopsis* Newsletter, p.22, November 1992 (UK)
 23. Mirza J.I. Rasheed S. and Bokhari M.H. Effects of inoculation methods on the growth and nodulation of two soybean cultivars. *Intern. J. Trop. Agric.* 10: 168-171, 1992 (India)
 24. Mirza J.I. and Tariq R. Effect of salinity on growth, seed yield and nodulation of *Cicer arietinum*. *Pak. J. Bot.* 25: 47-50, 1993 (Pakistan)
 25. Mirza J.I. and Tariq R. The growth and nodulation of *Trifolium alexandrinum* as affected by salinity. *Biol. Plant.* 35: 289-292, 1993 (Czech Public)
 26. Mirza J.I. Development and sedimentation of amyloplasts in relation to the hypocotyl hook in long melon seedlings. *J. Res. Sci.* 7: 1-4, 1995 (Pakistan)
 27. Mirza J.I. and Bokhari M.H. Fruits and Vegetables of Pakistan. Ferozsons (Pvt.) Ltd. Lahore, pp. 66, 1996, ISBN 969 0 01275 4, (Pakistan)
 28. Mirza J.I. Plant hormone mutants of *Arabidopsis thaliana*, *Pak. J. Bot.* 28: 41-49, 1996 (Pakistan)
 29. Mirza J.I. Amyloplast development and movement in relation to the hypocotyls hook in mungbean seedlings. *Pak. J. Pl. Sci.* 2: 1-9, 1996 (Pakistan)
 30. Mirza J.I. and Iqbal M. Spermine-resistant mutants of *Arabidopsis thaliana*. *Plant Growth Regul.* 22:151-156, 1997 (The Netherlands).
 31. Mirza J.I. and Saeed H.M. A mutation at *AP2* locus of *Arabidopsis* confers spermine resistance. *Biol. Plant.* 40: 67-73, 1998 (Czech Republic)
 32. Mirza J.I. and Rehman A. A spermine-resistant mutant of *Arabidopsis thaliana* displays precocious germination. *Acta Physiol. Plant.* 20: 235-240, 1998 (Poland)
 33. Mirza J.I., Li C., Yu W., Emory K.K. and. Malmberg R.L. Polyamine metabolism and hormone resistant mutants of *Arabidopsis thaliana*. Paper presentation at the "Annual Conference at Unicoi ", Georgia,

organized by the University of Georgia Plant Center, May 15-16, 2000 (USA)

34. Mirza J.I., Galau G.A. and Malmberg R.L. Studies with a viviparous mutant of *Arabidopsis thaliana*, *spr2*. Poster Presentation (Abstract No.224) at the "11th International Conference on Arabidopsis Research", University of Wisconsin, Madison, WI, June 24-28, 2000 (USA)
35. Mirza J.I., Li C., Yu W., Emory K.K. and Malmberg R.L. Hormone-resistant and polyamine metabolism mutants of *Arabidopsis thaliana*. Poster Presentation (Abstract No.225) at the "11th International Conference on Arabidopsis Research", University of Wisconsin, Madison, WI, June 24-28, 2000 (USA)
36. Mirza J.I., Saeed H.M. and Ghaffar A. Novel polyamine mutants of *Arabidopsis thaliana*. *Pak. J. Pl. Sci.* 7: 1-9, 2001 (Pakistan)
37. Elahi N.N., Mustafa S. and Mirza J.I. Growth and nodulation of mung bean (*Vigna radiata* [L.] Wilczek) as affected by sodium chloride. *J. Res. (Sci.)*, 15(2): 139-143, 2004 (Pakistan)
38. Elahi N.N., Akhtar W. and Mirza J.I. Effect of combined nitrogen on growth and nodulation of two mungbean (*Vigna radiata* [L.] Wilczek) cultivars. *J. Res. (Sci.)*, 15(1): 67-72, 2004 (Pakistan)
39. Mirza J.I. Novel developmental mutants of *Arabidopsis thaliana*. Abstract # T01-086, International Conference on Arabidopsis Research, Berlin, July 11th to 14th, 2004 (Germany)
40. Shah T.M., Mirza J.I., Haq M.A. and Atta B.M. Induced genetic variability in chickpea (*Cicer arietinum* L.) I. Frequency and Spectrum of chlorophyll mutations. *Pak. J. Bot.* 38(4): 1217-1226, 2006 (Pakistan)
41. Shah T.M., Mirza J.I., Haq M.A. and Atta B.M. Induced genetic variability in chickpea (*Cicer arietinum* L.) II. Comparative mutagenic effectiveness and efficiency of physical and chemical mutagens. *Pak. J. Bot.* 40(2): 605-613, 2008 (Pakistan)
42. Asif M., Rahman M., Mirza J.I. and zafar Y. High resolution Metaphore agarose gel electrophoresis for genotyping with microsatellite markers. *Pak. J. Agri. Sci.* 45 (1): 75-79, 2008 (Pakistan)
43. Saleem M.Y., Mirza J.I. and Haq M.A. Heritability, genetic advance and heterosis in line x testser crosses of Basmati rice. *J. Agric. Res.* 46(1): 15-26, 2008 (Pakistan)
44. Asif M., Mirza J.I. and Zafar Y. Genetic analysis for fiber quality traits of some cotton genotypes. *Pak. J. Bot.* 40(3): 1209-1215, 2008 (Pakistan)
45. Shah T.M., Mirza J.I., Haq M.A. and Atta B.M. Radio sensitivity of various chickpea genotypes in M₁ generation I- Laboratory studies. *Pak. J. Bot.* 40 (2): 649-665, 2008 (Pakistan)
46. Saleem M.Y., Mirza J.I. and Haq M.A. Triple test cross analysis of some physio-morphological traits in Basmati rice. *Pak. J. Bot.* 241(5): 2411-2418, 2009 (Pakistan)
47. Asif M., Rahman M., Mirza J.I. and Zafar Y. Parentage confirmation of cotton hybrids using molecular markers. *Pak. J. Bot.* 41: 695-701, 2009 (Pakistan)
48. Saleem M.Y., Mirza J.I. and Haq M.A. Combining ability analysis of yield and yield related traits in Basmati rice (*Oryza sativa* L.). *Pak. J. Bot.* 42(1): 627- 637, 2010 (Pakistan)
49. Saleem M.Y., Mirza J.I. and Haq M.A. Genetic basis of yield and some yield related traits in Basmati rice. *Pak. J. Bot.* 42(2): 955-961, 2010 (Pakistan)
50. Saleem M.Y., Mirza J.I. and Haq M.A. Combining ability analysis of some morpho-physiological traits in Basmati rice. *Pak. J. Bot.* 42(5): 3113-3123, 2010 (Pakistan)

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